SMARTRAID V Decade

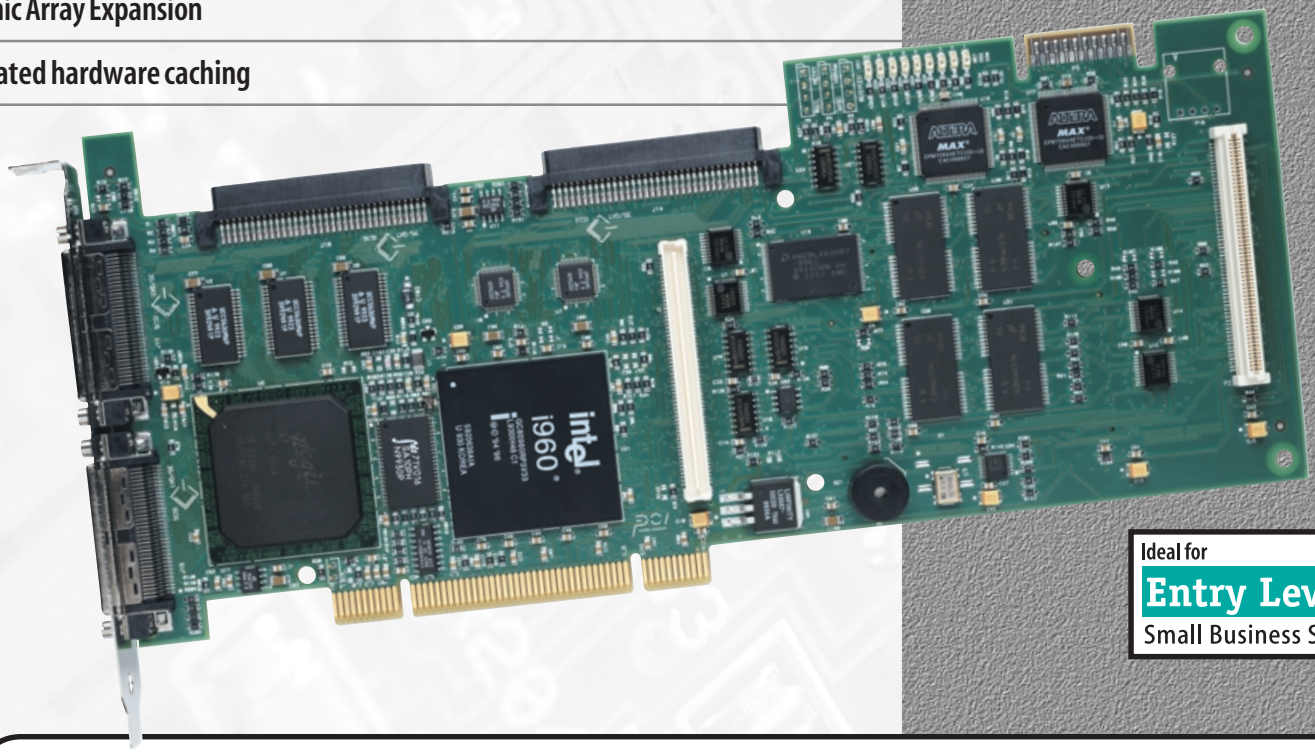
PM1564U3

Low-Cost Ultra160 SCSI RAID Controller

Available with one, two, three or four Ultra160 SCSI Channels

- Up to 160MB/s data transfer rate per channel
- 32-bit, 33MHz PCI host interface
- Intel® i960® 31 MIPS I/O processor for fast I/O performance
- Integrated hardware RAID 0, 1, 5, 0+1 and 0+5
- Dynamic Array Expansion
- Integrated hardware caching

Ultra 160 SCSI



Ideal for **Entry Level** and Small Business Servers

Features:

- Includes 4MB cache memory (upgradable up to 128MB ECC cache with optional RA4060 module)
- Fully I_2O® compliant
- Up to 160MB/s data transfer rate per channel
- Controls SCSI-1, SCSI-2 and SCSI-3 devices
- Controls Ultra160, Ultra2, Ultra and Fast SCSI devices
- Controls up to 15 SCSI devices per SCSI channel
- Low Voltage Differential (LVD) technology for up to 12 meter SCSI cable length (25 meters point-to-point)
- Integrated hardware RAID 0, 1, 0+1, 5 and 0+5
- Expansion Modules add 1 or 2 additional Ultra160 SCSI channels to a single channel controller
- PCI 2.2 compliant
- Intel i960 processor for ultra-low host CPU utilization
- Audible disk drive failure alarm
- Very high-density (VHDCI) external SCSI connector allows 4 external SCSI channels from a single slot
- Flash-upgradable firmware and BIOS
- Supports SAF-TE and SES storage cabinet status monitoring
- Dynamic Array Expansion permits drives to be added on-the-fly to existing arrays
- High-speed RAID data path engine, hardware XOR and ECC with optional RA4060 module
- Easy-to-use GUI storage management software
- BIOS-based device setup and RAID configuration utility
- Command Line Interface (CLI) utility for device status and configuration

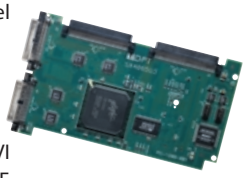
OpenServer 5 WORKS WITH · UnixWare 7 WORKS WITH · Novell TESTED APPROVED · LINUX · Year 2000 Compliant

DPT Distributed Processing Technology®

PM1564U3 Technical Specifications

Expansion Modules

RA4060 RAID Accelerator Module adds up to 128MB of hardware cache to the PM1564U3 controller. Includes high speed RAID data path engine, hardware XOR and ECC.



SX4065U3 and SX4065F Channel Expansion Modules add one (SX4065U3-1) or two (SX4065U3-2) additional Ultra160 SCSI channels to any SmartRAID VI single channel SCSI controller, supporting up to 60 SCSI devices from a single PCI slot. Add one Fibre Channel port to any single channel SmartRAID VI controller with the SX4065F.

DM4060 ECC EDO SO-DIMMs provide 16MB (DM4060-16) or 64MB (DM4060-64) of high-speed disk cache for PM1564U3 controller with the RA4060 RAID Accelerator module. Exclusive SmartCorrect™ ECC technology detects and corrects up to 32-bit data errors. The RA4060 also accepts industry-standard 16MB or 64MB EDO SO-DIMMs.

Storage Management Software

Storage Manager™ is a window into your storage system. This user-friendly, self-installing, GUI-based utility provides:

- Easy point-and-click creation, deletion and maintenance of disk arrays
- Array diagnostics
- Event logging and notification
- I/O load monitoring
- Device identification, status and inventory
- Supports Windows® 95/98, Windows 2000, NT®, NetWare®, Linux, SCO® Unix®, UnixWare®, BSDi and FreeBSD
- Remote management of server storage
- Online help

SMOR (Storage Manager On ROM) is a BIOS-based set-up utility that allows you to quickly configure SmartRAID VI controllers and attached devices without having to boot an operating system. Features include:

- Device identification, status, and inventory
- Controller hardware configuration options
- Low-level formatting of hard drives
- Creation and deletion of disk arrays
- View and modification of RAID configurations

DPTUTIL is a command line management utility that allows quick configuration and monitoring of SmartRAID VI controllers and attached devices.

- Supports Linux, FreeBSD, BSDi, SCO OpenServer 5, SCO UnixWare 7 and NetWare 5 operating systems

SCSI Features

SCSI Interface	Ultra160 SCSI, SPI-3, SCSI-3
Maximum SCSI Transfer Rate	160MB/s
SCSI Bus	16-bit with multi-mode SE/LVD termination
Number of SCSI Busses	1, 2, 3 or 4
Maximum Number SCSI Devices	15 per channel (maximum of 60 total)
External SCSI Connector(s)	68-pin Very High Density Cable Interconnect (VHDCI)
Internal SCSI Connector(s)	68-pin High Density

PCI Features

Host Interface	32-bit PCI 2.2 *(compatible with PCI 2.1 systems)*
Maximum PCI Transfer Rate	132MB/s

Operating Environments

- Microsoft® Windows® NT® 4.0, Windows 2000, Win 95/98, SCO® 3.2.4.2, SCO OpenServer 5, UnixWare® 2.1.4.2, SCO UnixWare 7, NetWare® 4.11, NetWare 5, Linux* (2.0x and 2.2x kernels), FreeBSD, BSDi 4.1
- I_2O compliant
- Compatible with I_2O block storage or SCSI OSMs provided with Windows NT, SCO, NetWare

** Tested with Red Hat Linux 5.2, 6.0, 6.1 and SuSE Linux 6.1, 6.2*

Power Requirements

Voltage	5V ± 5%
Ripple and Noise	50mV peak-to-peak max
Current	1.5A typical (single channel)

Reliability

MTBF	> 600,000 Hours

Environmental Specifications (operating)

Ambient Temperatures	0° to 50° C
Relative Humidity	10% to 90% non-condensing

Agency Certifications

FCC, CE, UL, CSA, AUSTEL, SMA, VCCI

Complete Kit Contents

- PM1564U3 Ultra160 SCSI RAID Controller
- Ultra160 wide internal SCSI cable with multi-mode terminator supporting 4 SCSI devices
- Storage management software
- Device drivers
- User's Manual and Quick Install Guide

Xtreme Performance

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